



National Audit Office

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Ministry of Defence

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# The Major Projects Report 2012

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## Key facts

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**Cost:**  
**£468m**

increase in 2011-12 forecast costs to complete all projects, including £336 million of future fuel costs on the Future Strategic Tanker Aircraft, over which the Department has limited financial control

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**Time:**  
**139 months**

increase in 2011-12 forecast delay to complete all projects

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**Quality:**  
**99%**

of technical specifications forecast to be achieved, at the point the equipment enters service

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**£56.5 billion** total cost to complete the 16 projects when they were approved

**159 years** total time to complete the 16 projects when they were approved

**237** total number of technical specifications that the 16 projects are measured against

**£63.1 billion** current forecast cost to complete the 16 projects

**195 years** current estimated time to complete the 16 projects

**£6.6 billion** cost increase on the 16 projects since approval

**468 months** total delays to the 16 projects since approval

**11.7 per cent** overall percentage cost increase since approval

**29 per cent** overall percentage time slippage against original planned project length

**£132 million** in-year cost increase over which the Department has more financial control

# Summary

**1** Each year the Ministry of Defence (the Department) presents to Parliament a *major projects report* which gives data on the cost, time and performance of the largest defence projects where the Department has taken the main decision to invest, known as post-main gate projects. It also contains less detailed information on the largest acquisition projects where the main investment decision has not yet been taken (known as pre-main gate projects). We validate the data and this report sets out the conclusions from our analysis and draws out key themes emerging.

**2** In 2012, the Department submitted to Parliament the first in what will be an annual series of statements on the affordability of its equipment plan. The Equipment Plan sets out the Department's forecast expenditure plans to provide and support the equipment the armed forces require to meet the objectives set out in the National Security Strategy over the next ten years. We have reviewed the Department's statement and intend to publish our conclusions in a separate report. The Plan covers forecast expenditure of £159 billion, including £73 billion on buying new equipment. The 16 post-main gate projects in this year's *Major Projects Report* account for £19.5 billion of this forecast procurement spend, which represents the remaining amount to be spent on these projects. Taken together with the *Major Projects Report*, the new statement on the affordability of the Equipment Plan provides a more informed basis for Parliament to understand whether the Department is balancing prudent financial management with meeting the equipment capability needs of the armed forces.

## Key findings

**3** **Limits to Departmental control over the causes of cost and time variation.** Delivering what is often highly sophisticated defence equipment to agreed timescales and costs is a complex challenge. The slippage of 139 months in the last year reflects issues on two-thirds of projects. However, the cost performance is more varied (**Figure 1** overleaf). Forecast costs have increased by £468 million in the past year, which reflects a net increase of £637 million on three projects, including £336 million of forecast fuel inflation on the Future Strategic Tanker Aircraft, and a net decrease of £169 million on the remaining projects.

**Figure 1**  
Main variations on project costs, 2011-12

Three projects contributed the majority of the £468 million increase in forecast costs reported in-year

Project	Net in-year project variation (£m)	Cost increases		Cost decreases	
		In-year cost increase (£m)	Reason	In-year cost decrease (£m)	Reason
Future Strategic Tanker Aircraft	+257	+336	Future fuel costs	-98	Refinancing PFI deal
		+31	Increases in inflation	-20	Manpower operating costs
				-10	Reclassified training costs
		+24	French participation in programme no longer planned		
		+2	Implementing new safety requirements	-5	Programme delays resulted in reduction in PFI charge
			-3	Savings in office support costs	
Queen Elizabeth Class aircraft carrier	+217	+217	Aircraft Carrier Alliance now have a greater understanding of costs relating to the build schedule, and were not able to fully deliver agreed cost reduction opportunities		
A400M aircraft	+163	+175	UK contribution to Export Levy Facility	-5	Reduced risk contingency
		+7	Training facility costs	-8	Reduction due to re-pricing
		+3	Integration of technology onto A400M	-10	Reuse of existing equipment on A400M
		+1	Increased fee to OCCAR (Organisation Conjointe de Coopération en Matière d'Armement)		
Costs of remaining 13 projects	-169				
<b>Total in-year forecast variation</b>	<b>+468</b>				

Source: National Audit Office analysis of departmental data

**4** In some cases, such as forecast fuel price inflation on the Future Strategic Tanker Aircraft, the Department has only very limited control over the causes of cost variation. The Department has greater control over other causes: not accounting for the impact of the fuel inflation for the past five years has meant that the cost increase reported this year has been greater than if more regular updates were made. On the Queen Elizabeth aircraft carriers project, the variation is due to Department and industry now having a greater understanding of the costs relating to the build schedule and not being able to fully deliver agreed cost reduction opportunities. Project delays primarily reflect a range of technical problems, such as software development, on which we have reported regularly.

**5 The importance of stability.** It would be unrealistic to expect the Department and its industry partners to identify every risk at the start of very technically challenging projects. However, the continuing problems indicate that the Department has more to learn from historic performance and, in particular, needs to set realistic timescales. If defence equipment projects do not meet approved cost and time boundaries this creates turbulence and uncertainty for the Equipment Plan, reducing the Department's ability to plan and manage the defence budget effectively.

**6** Reducing cost and time variations on projects should enable the Department to plan and deliver new capabilities to the armed forces with more certainty. However, as this year's *Major Projects Report* demonstrates, there continue to be cost variation and time slippage, with variations on 14 out of 16 projects. In recent years we have reported several times that the Department has had to slip projects or cut equipment numbers to bridge the gap between estimated funding and the forecast cost of the defence budget. These decisions were not value for money and meant that new capabilities were not available on time. There are no such instances recorded this year, though difficult decisions may still be necessary as part of the Department's drive to keep the Equipment Plan in balance.

**7 Historically the Department has tended to prioritise performance requirements.** With a limited budget, there is a balance to be struck between four elements: the performance requirement, the cost, the delivery time and the number of ships, aircraft or vehicles to be procured. Historically the Department has focused on achieving the full performance requirement, even if this means suffering delays, cost increases, or having to cut equipment numbers. The Department currently expects to achieve 99 per cent of its equipment capability specifications. However, average project costs have risen by nearly 12 per cent and projects have been delayed by nearly 30 per cent since the main investment decision. So it is clear that meeting the specified performance requirement has had priority.

**8 More recently, the Department has started to take a more balanced approach.** It has challenged the affordability of the proposed performance specifications of the Type 26 Global Combat Ship before the main investment decision. This is with the aim of defining an affordable requirement from the outset. We hope to see this approach to requirement setting adopted more widely across the Department. The Department believes that it is taking a more realistic approach to forecasting slippage that occurs on projects after the main investment decision has been taken, resulting in some of the increases reported this year. For example, Chinook New Buy helicopter project has added six months as a result of lessons learned during flight trials for the related Julius project.

**9 The Department is bearing the capability risk and some costs of project delays.** For example, a version of the Falcon communications system which was being developed for use in Afghanistan, at a cost of £32 million, will not now be deployed to theatre. This is partly due to development delays and it means that there will need to be reliance on legacy systems for a longer period.

**10 The Department is taking steps to address potential short-term gaps in capability in Afghanistan.** The Department has approved an additional £946 million upgrading helicopters for operations, and particularly on enhancing the ability to operate in the conditions experienced in Afghanistan. For example, 22 Lynx helicopters have been upgraded with new engines to allow them to operate year-round for the first time in Afghanistan. The Department has also increased the number of helicopters available by reducing maintenance times. On air transport and air-to-air refuelling, to support current operations, address known capability gaps, and reduce the impact of previously reported delays in introducing the A400M, the Department has spent £787 million. This has included extending the life of existing aircraft and purchasing two extra C-17s for strategic air transport, and two BAe 146 aircraft for transport and communications.

**11 Delays to new equipment and budgetary constraints require the Department to make difficult judgements on longer-term capability gaps.** At various points to 2017, there will be critical gaps in air transport and air-to-air refuelling capability. From 2022, there will be approximately a one-third shortfall in tactical transport aircraft against the stated requirement. On the ability to move passengers and cargo by helicopter, the Department has accepted that while there will be a shortfall against the full requirement, it believes that current plans will deliver a sufficient capability, and the risk will be reduced by using other defence capabilities.

## **Conclusion on value for money**

**12** The Department faces a difficult task balancing the tension between delivering the capabilities for which it has a stated requirement and those it can afford. Early signs show that it has begun to make realistic trade-offs between cost, time, technical requirements and the number of, for example, ships, aircraft or vehicles to be procured. However, the variances to cost and time reported this year indicate it needs to do consistently better. In these circumstances it is not yet possible to conclude the Department is consistently delivering value for money from managing its major projects.

**13** There will always be some causes of project instability over which the Department will have limited control. To achieve value for money in future on individual projects and to underpin an affordable Equipment Plan, the Department must continue to address long-standing issues on project performance to best use the money available.